

STATE OF CALIFORNIA  
Budget Change Proposal - Cover Sheet  
DF-46 (REV 08/17)

Fiscal Year 2018-19	Business Unit 5225	Department California Correctional Health Care Services	Priority No. 8
Budget Request Name 5225-128-BCP-2018-GB		Program 4650 – Medical Services – Adult 4670 – Dental and Mental Health Services Administration –Adult	Subprogram 4650012 – Medical Administration – Adult 4650014 – Medical Other – Adult

Budget Request Description  
Receiver – Electronic Health Record System

Budget Request Summary

California Correctional Health Care Services requests \$8.3 million in 2018-19 and \$7.1 million in 2019-20 and ongoing to complete the integration of a comprehensive Electronic Health Record System throughout California's prison system.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	
Does this BCP contain information technology (IT) components? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO Cheryl Larson	Date

For IT requests, specify the project number, the most recent project approval document (FSR, SPR, S1BA, S2AA, S3SD, S4PRA), and the approval date.

Project No. 5225-146      Project Approval Document: SPR #2 Version 3      Approval Date: Pending

If proposal affects another department, does other department concur with proposal? ☐ Yes ☐ No  
*Attach comments of affected department, signed and dated by the department director or designee.*

Prepared By Maylyn Tran	Date	Reviewed By Nancy Banh	Date
Department Director Duane Reeder	Date	Agency Secretary Diana Toche	Date

Department of Finance Use Only

Additional Review: ☐ Capital Outlay ☐ ITCU ☐ FSCU ☐ OSAE ☐ CALSTARS ☐ Dept. of Technology

PPBA Original Signed By Emma Jungwirth	Date submitted to the Legislature 1/10/2018
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### A. Budget Request Summary

California Correctional Health Care Services (CCHCS) requests \$8.3 million in 2018-19 and \$7.1 million in 2019-20 and ongoing to complete the integration of a comprehensive Electronic Health Record System throughout California's prison system. The additional funding request is to support project scope changes as identified in the Electronic Health Record System Special Project Report #2. The scope changes are essential for system functionality and include additional remote hosting concurrent users, additional licenses, cloud storage, disaster recovery, and training.

### B. Background/History

#### Program Background

As a result of a 2001 class action lawsuit, United States District Court Judge Thelton E. Henderson ordered the State of California's institutional medical system to be placed into Receivership. The Receiver was tasked with improving health care conditions in the adult institutions throughout California and defined his mission as follows:

*Reduce avoidable morbidity and mortality and protect public health by providing patients timely access to safe, effective and efficient medical care, and integrate the delivery of medical care with mental health, dental, and disability programs.*

On June 16, 2008, in an order signed by Judge Henderson, the federal court found the six strategic goals identified in the Receiver's Turnaround Plan of Action to be necessary to bring California's prison medical system up to constitutional standards. The goals identified in the Turnaround Plan of Action are:

- 1) Ensure timely access to health care services
- 2) Establish a prison medical program addressing the full continuum of health care services
- 3) Recruit, train and retain a professional quality medical workforce
- 4) Implement a quality assurance and continuous improvement program
- 5) Establish medical support infrastructure
- 6) Provide for necessary clinical, administrative and housing facilities

The Electronic Health Record System addresses, either directly or indirectly, each of the strategic goals in the Turnaround Plan of Action.

#### Project Background

In September 2013, the California Department of Technology approved the Feasibility Study Report submitted by CCHCS for the Electronic Health Record System Project. The Feasibility Study Report made the case for an enterprise-wide Electronic Health Record System, which provides access to patient information necessary to support the clinicians' abilities to improve health care decisions and effectiveness.

The Electronic Health Record System Project seeks to satisfy the court order, support or address each of the Turnaround Plan of Action's goals, address the gaps identified in the Receiver's Special Report: Improvements in the Quality of California's Prison Medical Care System, dated March 11, 2015, and support the remaining projects established by the Receiver and approved by the federal judge.

Electronic Health Record System is an enterprise-wide Commercial-Off-The-Shelf system which provides access to patient information anywhere and anytime necessary to support the clinicians' abilities to provide improved health care decisions and effectiveness. The Electronic Health Record System integrates and leverages existing clinical systems that provide data into a patient's clinical record. The Electronic Health Record System contains clinical information and data captured and documented about the patient and his/her care from the practice area where this record resides, as well as the clinical results, referrals, and consultations from other providers of care for a comprehensive view of patient health care and maintenance.

CCHCS received formal approval from the California Department of Technology for the Electronic Health Record System Project Special Project Report #1, dated May 3, 2016. This Special Project Report #1 addressed scope changes including the addition of the Electronic Dental Record System, decommission of legacy systems, medication management, and detailed the related schedule and budget changes.

## Analysis of Problem

### Project Status

The Electronic Health Record System Project has implemented the Cerner Millennium solution in all 35 institutions, all CCHCS headquarters locations, the Central Fill Pharmacy, the Health Records Center, and all Regional Offices.

The major activities remaining on the Project are implementation of remaining system functionality (including implementation and rollout of Electronic Dental Record System) and decommission of legacy systems.

### Resource History (Dollars in thousands)

Program Budget	PY - 4	PY - 3	PY - 2	PY - 1	PY
Authorized Expenditures	\$54,631	\$36,240	\$44,737	\$51,419	\$47,566
Authorized Positions	62.8	83.4	62.2	174.5	178.0

### C. State Level Considerations

Implementation of a comprehensive Electronic Health Record System throughout California's prison system is consistent with the goals identified in the Receiver's Turnaround Plan of Action in that it addresses, either directly or indirectly, each of the strategic goals, and helps other programs and processes already in place to achieve theirs.

Besides being consistent with the Receiver's Turnaround Plan of Action, the Electronic Health Record System is also supported by the federal court. On March 10, 2008, Judge Henderson signed a court order that states in part:

The objective of the Receiver's long term information technology program is to construct and support the CCHCS Information System based on the importance of "correct data at the point of care." The core design is based on an Electronic Medical Record<sup>1</sup> for each patient-inmate. The Electronic Medical Record will be paperless, medical information gathered in one location for physicians and clinicians to access, at various locations, and thereby enable them to make informed and safe medical decisions. All data obtained will be patient-centric to allow for an "Information at the Point of Care" system.<sup>2</sup>

With implementation of the Electronic Health Record System, CCHCS seeks to satisfy the court order, complete the Turnaround Plan of Action's prison medical support infrastructure objective, and complete the Information Technology related projects that were established by the Receiver and approved by the federal judge.

### D. Justification

Since the approval of the Special Project Report #1 in May 2016, the scope of the Electronic Health Record System Project has been modified to address new project needs that have risen. In accordance with the California Department of Technology project policy, a Special Project Report #2 is being submitted to Department of Finance and California Department of Technology for review and approval. Special Project Report #2 outlines the deviation from the approved project scope and budget due to additional remote hosting costs, additional licensing needs, cloud services, disaster recovery, and training. See the chart below that identifies funding for additional needs by fiscal year.

<sup>1</sup> At the time of the court order, Electronic Medical Record referred to Electronic Medical Record systems. Subsequently, as a result of the Affordable Care Act, Electronic Medical Records are now referred to as Electronic Health Care Record Systems.

<sup>2</sup> Findings of Fact and Conclusion of Law, *Plata v. Schwarzenegger*, United States District Court (No. C01-1351 TEH) (October 3, 2005).

## Analysis of Problem

Description	2018-19	2019-20	2020-21	TOTAL
Remote Hosting Concurrent User	\$5,894,784	\$5,588,784	\$5,483,784	\$16,967,352
Cerner Registered User Licenses	\$570,930	\$92,520	\$92,520	\$755,970
Nuance Dragon Cloud	\$308,237	\$214,455	\$214,455	\$737,147
Disaster Recovery Services	\$1,237,800	\$952,800	\$952,800	\$3,143,400
Training	\$250,000	\$250,000	\$250,000	\$750,000
<b>TOTAL</b>	<b>\$8,261,751</b>	<b>\$7,098,559</b>	<b>\$6,993,559</b>	<b>\$22,353,869</b>

The Electronic Health Record System contract estimated remote hosting concurrent user and license needs based on projections prior to pilot and regional rollouts. With the rollouts complete, and based on the remaining institutions to be implemented, the need for additional remote hosting concurrent users and licenses has been identified.

### **Additional Remote Hosting Concurrent Users**

Electronic Health Record System remote hosting concurrent users are the number of allowed user logons in the Electronic Health Record System at any given time. The current contract requires the system to accommodate 2,600 simultaneous users logged in and active. This number was based on 20 percent of 12,000 full-time equivalent medical staff, with a cushion of 200 concurrent users. Based on data from the recent rollouts, the percentage of concurrent users to full-time equivalent staff has increased to 38 percent. Additionally, the number of current full-time equivalent staff now includes medical, dental, mental health, former Department of State Hospital staff, and external users (such as court monitors and Office of the Inspector General staff), which is approximately 18,000 full-time equivalent staff. Thus, the Electronic Health Record System Project is in critical need to increase the number of allowed remote hosting concurrent users to 7,100 (6,840 concurrent users with a cushion of 260 concurrent users), which is a net increase of 4,500 users from the original contract limit. The funding request reflects increasing concurrent users gradually by fiscal year due to the timeline of implementing the additional users, with an increase to 6,600 concurrent users in 2018-19, and 7,100 concurrent users in 2019-20 and ongoing.

In order for the Electronic Health Record System to be available to all staff who need access, CCHCS requests \$1,176,000 in one-time costs and \$5,483,784 in annual ongoing costs. The costs reflect a negotiated monthly rate decrease from the Electronic Health Record System contract amount of \$125 to \$110 per concurrent user. Additionally, the one-time fee for remote hosting concurrent user expansion was negotiated down and reflects a decrease from contracted rates.

Remote Hosting Concurrent Users Cost Information by Fiscal Year				
Description	2018-19	2019-20	2020-21	Total
Remote Hosting Concurrent Users One-Time Costs	\$1,071,000	\$105,000	\$0	\$1,176,000
Remote Hosting Concurrent Users Ongoing Costs	\$4,823,784	\$5,483,784	\$5,483,784	\$15,791,352
Total Remote Hosting Concurrent Users Costs	\$5,894,784	\$5,588,784	\$5,483,784	\$16,967,352

If the Electronic Health Record System Project does not receive the additional remote hosting concurrent users requested, it will dramatically affect the sustainability of the enterprise-wide Electronic Health Record System solution. Some users will not be able to access the Electronic Health Record System, and other users may experience prolonged delays while using the system. Affected users will not be able to provide timely access to health care services.

### **Additional Cerner Registered User Licenses (also known as Cerner Licensed Software Licenses)**

Cerner Registered Users is defined as all authorized positions (also known as full-time equivalents) tracked by CCHCS' human resources organization. The current contract scope of use limit for the Electronic Health Record System is 12,000 Cerner Registered Users/full-time equivalent licenses. Based on updated data on authorized positions/full-time equivalents since Special Project Report #1, there is a need to increase the scope of use limit in the contract to 18,000 Cerner Registered Users/full-time equivalent licenses (a net

## Analysis of Problem

increase of 6,000 licenses). CCHCS requests \$478,410 in one-time costs in 2018-19, and \$92,520 in annual ongoing costs.

<b>Cerner Registered User Licenses Cost Information by Fiscal Year</b>				
<b>Description</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>Total</b>
Cerner Registered Users/full-time equivalent Licenses One-Time Costs	\$478,410	\$0	\$0	\$478,410
Cerner Registered Users/full-time equivalent Licenses Ongoing Costs	\$92,520	\$92,520	\$92,520	\$277,560
Total Cerner Registered Users/full-time equivalent Licenses Costs	\$570,930	\$92,520	\$92,520	\$755,970

The costs for the Cerner Registered Users/full-time equivalent licenses are made up of the following software components:

- Additional 6,000 licenses for CareAware Multimedia will cost \$270,510 in one-time costs and \$52,320 in annual ongoing costs.
- Additional 6,000 licenses for PowerInsight Explorer will cost \$121,730 in one-time costs and \$23,520 in annual ongoing costs.
- Additional 6,000 licenses for Access Management will cost \$86,170 in one-time costs and \$16,680 in annual ongoing costs.

If the Electronic Health Record System Project does not receive the additional licenses requested, it will dramatically affect the sustainability of an enterprise-wide Electronic Health Record System solution. Users may not be able to access the Electronic Health Record System and associated applications to provide timely access to health care services.

### Nuance Dragon Cloud

Nuance Dragon Cloud is the voice recognition software that allows clinicians to dictate notes directly into the patient record. The current non-cloud based version will no longer be supported by Cerner in the foreseeable future. A transition to the cloud version of the software now will provide better user interface and avoid end-of-life issues when the non-cloud version is no longer supported. CCHCS requests \$93,782 in one-time costs in 2018-19, and \$214,455 in annual ongoing costs.

<b>Nuance Dragon Cloud Cost Information by Fiscal Year</b>				
<b>Description</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>Total</b>
Nuance Dragon Cloud One-Time Costs	\$93,782	\$0	\$0	\$93,782
Nuance Dragon Cloud Ongoing Costs	\$214,455	\$214,455	\$214,455	\$643,365
Total Nuance Dragon Cloud Costs	\$308,237	\$214,455	\$214,455	\$737,147

### Disaster Recovery Services

Disaster Recovery is a concern to CCHCS as the inability to access health records for a significant period of time if a disaster were to occur is detrimental to patient care. The Cerner contract specifies a "not more than 29 day" recovery time objective. This should be reduced to a 72-hour recovery time objective. CCHCS requests \$285,000 in one-time costs in 2018-19, and \$952,800 in annual ongoing costs for enhanced disaster recovery services.

<b>Disaster Recovery Cost Information by Fiscal Year</b>				
<b>Description</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>Total</b>
Disaster Recovery One-Time Costs	\$285,000	\$0	\$0	\$285,000
Disaster Recovery Ongoing Costs	\$952,800	\$952,800	\$952,800	\$2,858,400
Total Disaster Recovery Costs	\$1,237,800	\$952,800	\$952,800	\$3,143,400

### Training

CCHCS requests annual ongoing training funding of \$250,000 starting in 2018-19. The funding will allow staff to maximize efficiencies within the system by receiving training for Electronic Health Record System ongoing system upgrades and maintenance. The request includes \$1,500 in annual training costs for approximately 167 staff supporting the Electronic Health Record System.

## Analysis of Problem

Training Cost Information by Fiscal Year				
Description	2018-19	2019-20	2020-21	Total
Training	\$250,000	\$250,000	\$250,000	\$750,000

### Impact If Not Approved

If this proposal is not approved, the sustainability of a comprehensive Electronic Health Record System throughout California's prison system will be affected. Users may not be able to access the Electronic Health Record System or associated applications to provide timely access to health care services.

There will be a risk of compromising the Electronic Health Record System Project's mission to implement a solution that will raise the level of medical care in California prisons to an acceptable standard. If not approved, CCHCS can encounter the same business problems it had prior to the start of the Electronic Health Record System Project:

- Risk of compliance violations and litigation
- Inadequate patient safety and clinical transparency
- Inefficient health care delivery
- Insufficient continuity of care across care settings

### E. Outcomes and Accountability

The Electronic Health Record System is a key component to patient care within the institutions in California. Approval of this request will allow for complete implementation of the Electronic Health Record System Project and full access for users on the Electronic Health Record System.

Numerous reports are used for reporting out on the status and tracking of the Electronic Health Record System Project. The Receiver submits an Electronic Health Record System update as part of the Tri-Annual Report. The California Department of Technology Independent Project Oversight creates a monthly Independent Project Oversight Report based on analysis and participation in project meetings. Additionally, the CCHCS Project Management Office provides monthly Project Status Reports to California Department of Technology and quarterly reports to the Joint Legislative Budget Committee. These external reports will continue to track the Electronic Health Record System Project to completion.

### F. Analysis of All Feasible Alternatives

#### Alternative #1

Approve \$8.3 million in 2018-19 and \$7.1 million in 2019-20 and ongoing to complete the integration of a comprehensive Electronic Health Record System throughout California's prison system by providing funding for remote hosting, licensing, cloud storage, enhanced disaster recovery services and training.

#### Pros

- Increases the remote hosting concurrent users and Cerner Registered User/full-time equivalent licenses needed to effectively utilize the Electronic Health Record System at all institutions, CCHCS headquarters, the Central Fill Pharmacy, the Health Records Center, and all Regional Offices.
- Improves the system Disaster Recovery services to be in line with agency needs.
- Moves the agency in the state-recommended direction of cloud storage.
- Training allows staff to maximize efficiencies within the system.

#### Cons

- Additional General Fund expenditures.

#### Alternative #2

Approve \$6.5 million in 2018-19 and \$5.7 million in 2019-20 and ongoing to complete the integration of a comprehensive Electronic Health Record System throughout California's prison system by providing funding for additional remote hosting users and licensing only.

## Analysis of Problem

### Pros

- Increases the remote hosting concurrent users and Cerner Registered User/full-time equivalent licenses needed to effectively utilize the Electronic Health Record System at all institutions, CCHCS headquarters, the Central Fill Pharmacy, the Health Records Center, and all Regional Offices.

### Cons

- CCHCS may suffer a long-term outage of the Electronic Health Record System in a disaster that impacts the system, since current contract disaster recovery time objective is “not more than 29 days.”
- The Nuance Dragon software use may be limited or discontinued if CCHCS does not move to cloud-based storage.
- New staff will take longer to be trained, and CCHCS will need to redirect additional resources for training on the system.

### **Alternative #3**

Approve \$5.9 million in 2018-19 and \$5.6 million in 2019-20 and ongoing to complete the integration of a comprehensive Electronic Health Record System throughout California’s prison system by providing funding for additional remote hosting users only.

### Pros

- Increases the remote hosting concurrent users needed to effectively utilize the Electronic Health Record System at all institutions, CCHCS headquarters, the Central Fill Pharmacy, the Health Records Center, and all Regional Offices.

### Cons

- The number of allowed users able to access the system simultaneously under the Cerner Registered User/full-time equivalent licenses will not meet the needs of CCHCS.
- CCHCS may suffer a long-term outage of the Electronic Health Record System in a disaster that impacts the system, since current contract disaster recovery time objective is “not more than 29 days.”
- The Nuance Dragon software use may be limited or discontinued if CCHCS does not move to cloud-based storage.
- New staff will take longer to be trained, and CCHCS will need to redirect additional resources for training on the system.

## **G. Implementation Plan**

Implementation of the Electronic Health Record System has already begun and the system has been rolled out to all institutions as of October 2017. The Electronic Health Record System Project is continuing activities to implement the remaining Electronic Health Record System functionality by December 2018 (including implementation of the Electronic Dental Record System), decommission legacy systems by January 2020, and close out the project with a Post Implementation Evaluation Report by June 2020.

## **H. Recommendation**

Alternative #1 – Approve \$8.3 million in 2018-19 and \$7.1 million in 2019-20 and ongoing to complete the integration of a comprehensive Electronic Health Record System throughout California’s prison system.